

# Mercury Management Services

PSC is the premier environmental and industrial services company in North America. After 25+ years working with government, industry, and commercial clients, PSC has the experience to provide comprehensive solutions to our customers. PSC has provided mercury management expertise to the energy and petrochemical industry for over 15 years including consulting, planning, remediation, decontamination, air-monitoring, and waste management services. PSC has successfully partnered with several major oil and gas industry leaders to develop and implement long term mercury management programs. PSC leverages specialized cleaning equipment, skilled technicians, proprietary chemical treatments, and holistic processes for mercury decontamination of equipment, natural gas process piping systems, and other porous and non-porous surfaces.

## Mercury Decontamination

Mercury is just one of many trace metals found in all forms of hydrocarbons including petroleum, natural gas, and coal. Even in small quantities, mercury presents complicated health, toxicological, and ecological risks which must be addressed. Operationally, mercury and its compounds are corrosive and pose a potentially catastrophic threat to sophisticated process equipment and catalysts. PSC has built upon years of experience to develop a comprehensive mercury mitigation process ranging from temporary dispersion or suppression to complete mercury elimination. PSC's unique and proprietary phased approach for chemical decontamination is based on exhaustive research by one of the nation's foremost mercury experts, Mercury Technology Services (MTS). Our chemical treatment solutions capitalize on the various metallurgies, chemistry, and application techniques analyzed by MTS and confirmed to be effective via laboratory data. PSC can perform mercury cleaning at onshore customer facilities or at our specialized decontamination facilities in Louisiana. Mercury decontamination offshore is possible assuming accessibility, platform footprint, and logistics support are not limiting factors.

## Mercury Vapor Monitoring Programs

PSC has designed comprehensive air monitoring programs for energy and petrochemical clients using active and passive monitoring protocols for both personnel and work areas. PSC personnel are highly trained and experienced with the latest technology to monitor, detect, and report mercury and other potentially hazardous compounds associated with oil and gas processing. We use real time monitoring, precise data logging, duplicate sampling, and quality assurance safeguards to provide detailed client reports.

## Waste Management Services

Mercury and its compounds are soluble in crude oil and gas condensate. The partitioning of mercury into product and effluent streams presents a complicated waste management and health and safety problem, especially with decommissioning process equipment like tanks and piping. The threat to worker safety is extreme when mercury impacted equipment is cut up during "hot work" operations. PSC can help alleviate your problems with one of the most extensive waste management and containerization, safety monitoring, and transportation networks in all of North America.

## Mercury Services:

- Offshore & Onshore
- Gas/Product Stream Sampling
- Platform Characterization
- Well Intervention Monitoring
- Surface Decontamination
- Process System, Tanks, & Piping Chemical Cleaning
- Comprehensive Air Monitoring
- Waste Management
- Cryo-Separation Equipment Inspection & Modeling
- Perlite Removal/Replacement, Radiography, Borescope
- Hg Absorption Bed Catalyst Removal/Replacement

## Advantages/Benefits:

- Extensive Mercury Sampling Resources: Nippon, Genesis Labs, Arizona Instruments, & Lumex Meters.
- Fleet of Specialized Equipment, Transporters, & 21 PSC Owned/Operated TSDFs Throughout the U.S.
- Existing Resources in Major Market Areas Including the Gulf of Mexico, Mid-Continent, & California.



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## THE PSC ADVANTAGE

### Safety Excellence

Safety is the foundation for everything we do. PSC is totally committed to workplace safety and environmental excellence.

### Quality People

Our staff of thousands of experienced technicians and industry experts know your business and consistently provide you with exceptional service.

### Integrated Services

PSC's integrated portfolio of services and geographic resources eliminates the need for multiple subcontractors, trims administrative costs, improves scheduling, and delivers exceptional results.

### Value Creation

With PSC as your single source for critical support services, you can concentrate on your core business while capturing reduced operating costs.

### Contact PSC Now

PSC provides industrial & environmental services from coast-to-coast with our nationwide network of facilities.

[www.PSCNow.com](http://www.PSCNow.com)  
PSC Contact (281) 817-1976

[www.hgtech.com](http://www.hgtech.com)  
[smw@hgtech.com](mailto:smw@hgtech.com)

## Cryogenic Separation Equipment Inspection & Mercury Modeling

Mercury's corrosive chemical properties represents a potentially catastrophic risk of failure to cryogenic separation equipment and a significant health and safety risk for process equipment operators. PSC partnered with Mercury Technology Services (MTS) and Intertek experts to form a highly specialized team to counter this threat and provide consultation, guidance, and analytical services for aluminum heat exchanger performance in potential mercury contaminated environments. Services include process design analysis, equipment inspection, and risk analysis. MTS uses proprietary computational methods to predict mercury deposition in cryogenic equipment.

Extremely low analytical detection levels are required for computational modeling. Intertek is capable of measuring mercury in ppt ranges in oil and gas matrices.

Based on the results of the computational modeling, PSC implements an inspection plan using full service capabilities including radiography and borescope inspection, Perlite removal/replacement, and insulation removal and replacement.

Assimilated data are provided as a detailed risk analysis and inspection report that includes data interpretation, operational risk analysis, and recommendations/conclusions. Reporting also includes:

- Metallurgical Details
- Comparisons of AHX Mercury Induced Failure Modes/Locations
- Mercury Removal Beds Process Placement, Chemistry, & Performance



Count on PSC emphasizing safety above all.

At PSC, our goal is to maintain an incident-free work environment. To achieve that goal, we begin by hiring qualified individuals, and provide extensive HS&E and skills training for our employees. Our safety process focuses on behavior, decision-making, and skill development; our in-depth skills training programs are the most advanced in the industry. Our safety statistics reflect the success of our strategy.